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PTO/SB/08A (08-00)

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/730,067	
			Filing Date	December 9, 2003	
			First Named Inventor	Louis B. ROSENBERG	
			Group Art Unit	2674	
			Examiner Name		
Sheet	1	of	3	Attorney Docket Number	IMMR-067/04US

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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
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	A4	5,466,213		Hogan et al.	11/14/1995
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¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

Examiner: XIAO WU

Date 9-3-05

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Examiner Name					
Sheet	2	of	3	Attorney Docket Number	IMMR-067/04US

<input checked="" type="checkbox"/>	A33	3,497,668		Hirsch	02/24/1970
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		Office ¹	Number ²	Kind Code ³ (if known)			
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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¹ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

² For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

³ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

⁴ Applicant is to place a check mark here if English language Translation is attached.

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Examiner Name					
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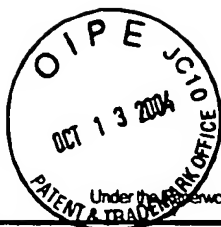
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

192254 v1/RE
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¹ Unique citation designation number.

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(1 of 2)

PTO/SB/08A (10-01)

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Substitute for Form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **1** of **3****Complete if Known**

Application Number	10/730,067
Filing Date	December 9, 2003
First Named Inventor	Louis B. Rosenberg
Art Unit	2674
Examiner Name	Unassigned
Attorney Docket Number	IMMR067/04US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
[Signature]		6,422,941	7/23/2002	Thomer et al.	
		6,160,489	12/12/2000	Perry et al.	
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[Signature]		4,127,752	11/28/1978	Lowthorp	
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		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
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		JP	H2-24147		1/27/1996	Sega Corporation	
		JP	H5-182449		8/3/1993	Taito Corporation	

Examiner
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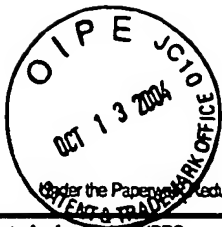
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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Examiner Signature	X/140 Wu	Date Considered	9-3-05
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		5,103,404	04-1992	McIntosh	

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Signature

Xiao Wu

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Considered

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet **3** of **11****Complete if Known**

Application Number	10/730,067
Filing Date	December 9, 2003
First Named Inventor	Louis B. Rosenberg
Art Unit	2674
Examiner Name	Unassigned
Attorney Docket Number	IMMR067/04US

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
X		5,107,080	04-1992	Rosen	
		5,116,051	05-1992	Moncrief et al.	
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X		5,259,894	11-1993	Sampson	
		5,262,777	11-1993	Low et al.	

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Sheet 4 of 11

Complete if Known

Application Number	10/730,067
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First Named Inventor	Louis B. Rosenberg
Art Unit	2674
Examiner Name	Unassigned
Attorney Docket Number	IMMR067/04US

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<i>Ln</i>		5,264,768	11-1993	Gregory et al.	
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Sheet **5** of **11****Complete if Known**

Application Number	10/730,067
Filing Date	December 9, 2003
First Named Inventor	Louis B. Rosenberg
An Unit	2674
Examiner Name	Unassigned
Attorney Docket Number	IMMR067/04US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Xm		5,589,854	12-1996	Tsai	
		5,591,924	01-1997	Hilton	
		5,623,582	04-1997	Rosenberg	
		5,625,576	04-1997	Massie et al.	
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		5,767,839	06-1998	Rosenberg	
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Xm		6,278,439	08-2001	Rosenberg et al.	

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		JP	4-34610				
		GB	2254044				
		WO	9502801				
		WO	9542078				
		EP	0626634	A2			

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/730,067
		Filing Date	December 9, 2003
		First Named Inventor	Louis B. Rosenberg
		Art Unit	2674
		Examiner Name	Unassigned
Sheet 6 of 11	Attorney Docket Number	IMMR067/04US	

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		WO	9532459				
		WO	9712357				
		WO	9720309				
		WO	9721160				
		WO	9731333				

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 7 of 11

Complete if Known

Application Number	10/730,067
Filing Date	December 9, 2003
First Named Inventor	Louis B. Rosenberg
Art Unit	2674
Examiner Name	Unassigned
Attorney Docket Number	IMMR067/04US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Cursor Walso, "Designer's Corner Useful Technology for Your Idea File," Design News, Mar. 7, 1993, p. 63.
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Examiner Signature	<i>Xiao Wu</i>	Date Considered	<i>9-3-05</i>
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**INFORMATION DISCLOSURE
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Sheet 8 of 11

Complete if Known

Application Number	10/730,067
Filing Date	December 9, 2003
First Named Inventor	Louis B. Rosenberg
Art Unit	2674
Examiner Name	Unassigned
Attorney Docket Number	IMMR067/04US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Buttolo, Pietro et al., "Pen-Based Force Display for Precision Manipulation in Virtual Environments," IEEE Mar. 1995, pp. 1-8.
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Examiner Signature	XIAO WU	Date Considered	9-3-05
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/730,067
		Filing Date	December 9, 2003
		First Named Inventor	Louis B. Rosenberg
		Art Unit	2674
		Examiner Name	Unassigned
Sheet 9 of 11	Attorney Docket Number	IMMR067/04US	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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		Kilpatrick, Paul Jerome, 1947, "The Use of a Kinesthetic Supplement in an Interactive Graphics System", Xerox University Microfilms, Ann Arbor, Michigan 48106, 1976, pp. 1-175.	
		Kim, Won S. et al., "Graphics Displays for Operator Aid in Telemanipulation," IEEE 1991, pp. 1059-1067.	
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		Repperger, D.W., "Active Force Reflection Devices in Teleoperation", IEEE Control Systems, 1991, pp. 52-56.	
		Rosenberg et al., "The use of force feedback to enhance graphical user interfaces," Stereoscopic Displays and Virtual Reality Systems III, Proc. SPIE 2653, 1996, pp. 243-248.	

Examiner Signature	XIAO WU	Date Considered	9-3-03
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/730,067
		Filing Date	December 9, 2003
		First Named Inventor	Louis B. Rosenberg
		Art Unit	2674
		Examiner Name	Unassigned
Sheet 10 of 11	Attorney Docket Number	IMMR067/04US	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
		Rosenberg, L.B., "Commercially Viable Force Feedback Controller for Individuals with Neuromotor Disabilities", AT/CF-TR-1997-0016, United States Air Force Armstrong Laboratory, May 1996.	
		Rosenberg, Louis B. et al., "Perceptual Decomposition of Virtual Haptic Surfaces," IEEE, Oct. 1993.	
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		Rosenberg, Louis B., "The Use of Virtual Fixtures as Perceptual Overlays to Enhance Operator Performance in Remote Environments," Air Force Material Command, Sep. 1992, pp. 1-42.	
		Rosenberg, Louis B., "Virtual Fixtures as Tools to Enhance Operator Performance in Telepresence Environments," SPIE Telemanipulator Technology, 1993.	
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		Rosenberg, Louis B., Crew Systems Directorate Biodynamics and Biocommunications Division Wright-Patterson, Air Force Material Command, Mar. 1993, pp. 1-45.	
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Examiner Signature	XIAO WU	Date Considered	9-3-05
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		Tavkhelidze, D.S. "Kinematic Analysis of Five-Link Spherical Mechanisms," Mechanism and Machine Theory 1974, vol. 9, pp. 181-190.
		Wiker, Steven F. et al., "Development of Tactile Mice for Blind Access to Computers: Importance of Stimulation Locus, Object Size, and Vibrotactile Display Resolution," Proceedings of the Human Factors Society 35th Annual Meeting 1991, pp. 708-712.
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Examiner Signature	<i>X/142 nlu</i>	Date Considered	<i>9-3-05</i>
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